Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended): A method for a DHCP client to send a DHCP request to a DHCP server via a BOOTP Relay Agent, the DHCP client contained in a [[ ]]Mobile Host having a MAC address and having MAC layer connectivity with [[ ]]a foreign agent having [[ ]]a MAC address and a care of IP address, the [[ ]]BOOTP Relay Agent being coupled to a home agent having an address, the steps comprising:

A) sending a mobile IP Registration Request message and a Mobile IP Registration Reply message to establish a Mobile IP forward tunnel and a Mobile IP reverse tunnel, the Mobile IP Registration Request having a Mobile Host Identifier that is set to the MAC address of the Mobile Host, and the Mobile IP Registration Reply message having a Mobile Host Identifier that is set to the address of the Mobile Host, wherein the MAC address of the Mobile Host is used to identify mobility bindings for the Mobile Host;

B) generating a DHCP request, the DHCP request having a protocol field and a source IP address, the protocol field containing the MAC address of the Mobile Host and the source IP address is zero;

C) sending the DHCP request to the foreign agent;

D) adding an encapsulation header by the foreign agent;

E) sending the request to the home agent;

F) removing the encapsulation header; and

G) forwarding the request to a home subnet.

wherein the DHCP client obtains an IP address from a DHCP server on the home subnet via the Mobile IP forward tunnel.

2. (Original): The method of claim 1, further comprising:

H) generating a DHCP reply, the DHCP reply having a protocol field, the protocol field containing the MAC address of the Mobile Host;

I) sending the DHCP reply across the home subnet to the home agent;

J) adding an encapsulation header to the reply by the home agent;

72255 11670 847931 2
PAGE 5/12 * RCVD AT 1/12/2006 4:28:09 PM [Eastern Standard Time] * SVR:USPTO-EFXRF-6/36 * DNIS:2738300 * CSID:2165925009 * DURATION (mm-ss):03-12

K) forwarding the reply to the foreign agent;

L) removing the encapsulation header by the foreign agent; and

M) forwarding the reply to the mobile host.

3. (Original): The method of claim 2, wherein the encapsulation header added to the DHCP request is an IP encapsulation header having a source field containing the IP address of the foreign agent and a destination field containing the IP address of the home agent.

4. (Original): The method of claim 3, wherein the encapsulation header added to the DHCP reply is an IP encapsulation header having a source field containing the IP address of the home agent and a destination field containing the IP address of the foreign agent.

Claims 5-8 (Cancelled)

9. (Currently Amended): A method for a DHCP client for obtaining an IP address from a DHCP server, the DHCP client being connected to a foreign subnet having a foreign agent, the foreign agent having a care of address, [[ ]]a home subnet having a home agent, the home agent having an address, comprising the following steps in the sequence set forth:

A) sending a mobile registration request having a MAC address as a mobile host identifier;

B) generating a DHCP request by the client, the DHCP request having a protocol field and a source IP address field, wherein the protocol field being set to the MAC address of the mobile host, and the source IP address field is set to 0;

C) adding a first inner IP encapsulation header and a first outer IP encapsulation header to the DHCP request;

D) sending the DHCP request to the home subnet;

E) removing the first inner IP encapsulation header and first outer IP encapsulation header from the DHCP request;

F) forwarding the request to the DHCP server;

G) generating a reply to the DHCP request;

PAGE 6/12 * RCVD AT 1/12/2006 4:28:09 PM [Eastern Standard Time] * SVR:USPTO-EFXRF-6/36 * DNIS:2738300 * CSID:2165925009 * DURATION (mm-ss):03-12

H) adding a second inner IP encapsulation and a second outer IP encapsulation header to the reply;

I) sending the reply to the foreign subnet;

J) removing the second outer encapsulation header and the second inner encapsulation header; and

K) forwarding the reply to the DHCP client.

wherein the DHCP server is on the home subnet and the DHCP client obtains an IP address from the reply sent by the DHCP server.

10. (Original): The method of claim 9 wherein the DHCP request includes a giaddr field, the first inner IP encapsulation header having a source address and a destination address, step A) further comprising:

1) setting the giaddr field to 0;

2) setting the first inner IP encapsulation header destination IP address to indicate that the DHCP client does not have an IP address.

11. (Original): The method of claim 9 wherein the first outer IP encapsulation header has a source address and a destination address, the steps further comprises setting the first outer IP encapsulation header source address to the foreign agent care of address and the first outer IP encapsulation header destination address to the home agent address.

12. (Original): The method of claim 9 wherein step D) is performed by reverse Mobile IP tunnel.

13. (Original): The method of claim 9 wherein the DHCP request having a giaddr field and a chaddr field, step E) further comprising:

1) obtaining the MAC address of the DHCP client from the chaddr field; and

2) inserting the BOOTP relay agent IP address into the giaddr field.

14. (Original): The method of claim 9, the second inner IP encapsulation header having a source IP address and a destination IP address, step H) further comprising setting the

PAGE 7/12 * RCVD AT 1/12/2006 4:28:09 PM [Eastern Standard Time] * SVR:USPTO-EFXRF-6/36 * DNIS:2738300 * CSID:2165925009 * DURATION (mm-ss):03-12

second inner IP encapsulation header destination IP address to indicate that the source mobile host does not have an IP address.

15. (Original): The method of claim 9, the second outer IP encapsulation header having a source IP address and a destination IP address, step H) further comprising setting the second outer IP encapsulation header source address to the home agent IP address, and setting the second outer IP encapsulation header destination IP address to the foreign agent care of IP address.

16. (Original): The method of claim 9, the reply having a chaddr field, step K) further comprising:

1) obtaining a MAC address for a mobile host coupled to the DHCP client from the chaddr field; and

2) forwarding the reply to the mobile host identified by the MAC address.

17. (Currently Amended): A mobile host, the mobile host containing [[ ]]a DHCP client, the mobile host being on a foreign subnet communicatively coupled to a home subnet of the DHCP client, comprising:

means for sending a mobile IP registration request with a mobile host identifier and a source IP address, the mobile host identifier set to the MAC address of the mobile host and the source IP address is set to 0;

means for receiving a reply to the mobile IP registration request having a mobile host identifier, the mobile host identifier being set to the MAC address of the mobile host[[.]];

means for receiving a DHCP request, the request having a giaddr field and a protocol field;

means for setting the giaddr field to 0 and the protocol field to the MAC address of the mobile host;

means for adding an inner encapsulation IP header to the DHCP request, the inner encapsulation header having a source address and a destination address;

means for setting the source IP address to indicate that the mobile host does not have an IP address; and

72255 11670 867831 2
PAGE 8/12 * RCVD AT 1/12/2006 4:28:09 PM [Eastern Standard Time] * SVR:USPTO-EFXRF-6/36 * DNIS:2738300 * CSID:2165925009 * DURATION (mm-ss):03-12

means for sending the request from the foreign subnet to the home subnet.

wherein the DHCP client obtains an IP address from a DHCP server on the home subnet.

Claims 18 - 20 (Cancelled)

PAGE 9/12 * RCVD AT 1/12/2006 4:28:09 PM [Eastern Standard Time] * SVR:USPTO-EFXRF-6/36 * DNIS:2738300 * CSID:2165925009 * DURATION (mm-ss):03-12